

In The Claims

1. (Currently Amended) A sliding door system for a vehicle, wherein the vehicle has a chassis and a sliding door that is movable between a closed position and an open position on the chassis, and the sliding door system comprises:

a carrier connected to the sliding door;

an energy guide chain having a first end directly connected to the carrier for movement with the sliding door and a second end connected to the chassis; and

the energy guide chain includes a region disposed between the first end and the second end, and the region adjusts and bends in a single direction to define a first radius of curvature when the sliding door is in the closed position and a second radius of curvature when the sliding door is in the open position, and the first radius of curvature is smaller than the second radius of curvature.

2–13. (Canceled)

14. (Previously Presented) The sliding door system for a vehicle of claim 1, wherein:

the carrier is joined to a central portion of the sliding door.

15. (Previously Presented) The sliding door system for a vehicle according to claim 1, wherein:

the first end of the energy guide chain and the second end of the energy guide chain are spaced apart a first distance when the sliding door is in the open position and are spaced apart a second distance when the sliding door is in the closed position, and the first distance is smaller than the second distance.

16. (Previously Presented) The sliding door system for a vehicle according to claim 1, wherein:

the ratio of the first radius of curvature in the closed position of the sliding door to the second radius of curvature in the open position of the sliding door is less than about 0.9.

17. (Previously Presented) The sliding door system for a vehicle according to claim 1, wherein:

the ratio of the first radius of curvature in the closed position of the sliding door to the second radius of curvature in the open position of the sliding door is less than about 0.8.

18. (Previously Presented) The sliding door system according to claim 1, wherein:

the ratio of the first radius of curvature to the second radius of curvature is less than about 0.5.

19. (Previously Presented) The sliding door system according to claim 1, wherein the energy guide chain further comprises:

a first section of the region in which the first radius of curvature is formed when the sliding door is in the closed position; and

a second section of the region in which the second radius of curvature is formed when the sliding door is in the open position.

20. (Previously Presented) The sliding door system of claim 1, wherein the energy guide chain further comprises:

- a first section of the region in which the first radius of curvature is formed when the sliding door is in the closed position; and

- a second section of the region in which the second radius of curvature is formed when the sliding door is in the open position, and wherein the first section has a length that is shorter than a length of the second section.

21. (Previously Presented) The sliding door system of claim 19, wherein the energy guide chain first section prevents the energy guide chain first section from curving to a radius of curvature less than the first radius of curvature; and the energy guide chain second section prevents the energy guide chain second section from curving to a radius of curvature less than the second radius of curvature.

22. (Currently Amended) An energy guide chain system for a vehicle, the vehicle having a chassis and a sliding door that can be moved between a closed position and an open position on the chassis, and the energy guide chain system comprises:

- a carrier connected to the sliding door; and

- an energy guide chain having:

- a first end connected to the carrier for movement with the sliding door and a second end connected to the chassis; and

- a region between the first end and the second end and the region bends in a single direction, and the region has a first section that defines a first radius of curvature when the sliding door is in the open position, and a second section that defines a second radius of curvature when the sliding door is in the closed position.